

WHAT IS CLAIMED IS:

- 1 1. A distributed emergency building lighting system comprising:
2 an electroluminescent (EL) panel;
3 means for providing electrical power to illuminate said EL panel; and
4 control means electrically coupled to said electrical power means and
5 said EL panel for illuminating a predetermined designated area within the
6 building in response to an input stimulus.
- 1 2. Emergency building lighting system as defined in claim 1, wherein said
2 predetermined designated area further comprises low-level path marking to
3 provide visual delineation of the path of egress.
- 1 3. Emergency building lighting system as defined in claim 1, wherein said
2 predetermined designated area further comprises floor illumination within a
3 prescribed distance from at least one wall of a room in accordance with code
4 requirements.
- 1 4. Emergency building lighting system as defined in claim 2, wherein said
2 EL panel is a stripe of indeterminate length located on one or more of a
3 designated area including on a floor and on a wall at or near the floor in
4 accordance with code requirements.
- 1 5. Emergency building lighting system as defined in claim 2, wherein said
2 EL panel lights an exit sign at or near the floor in accordance with code
3 requirements.
- 1 6. Emergency building lighting system as defined in claim 1, wherein said
2 power means further comprises an EL power supply having an input coupled
3 to the line side of an electrical switch supplying commercial AC power to the
4 conventional lighting located in said designated area and to a DC voltage
5 source in the absence of AC power at the line side of said electrical switch.

1 7. Emergency building lighting system as defined in claim 6, wherein said
2 EL power supply further includes means for adjusting the light intensity of the
3 EL panel to a desired intensity.

1 8. Emergency building lighting system as defined in claim 1, wherein said
2 control means further includes self-diagnostic testing means for verifying
3 operational conditions of the lighting system including the detection of an
4 electrical short circuit and an electrical open circuit of an EL panel coupled to
5 said control means.

1 9. Emergency building lighting system as defined in claim 8, wherein said
2 self-diagnostic testing means includes detection of a normal operating circuit
3 of an EL panel coupled to said control means.

1 10. Emergency building lighting system as defined in claim 8, wherein said
2 self-diagnostic testing means includes detection of an inoperative electrical
3 power means.

1 11. Emergency building lighting system as defined in claim 8, wherein said
2 self-diagnostic testing means further comprises testing means for determining
3 the charge capacity of the battery.

1 12. Emergency building lighting system as defined in claim 11, wherein
2 said battery testing means further comprises means for connecting a test
3 electrical load to the battery for a predetermined short time interval;
4 means for sensing the battery voltage during the short time interval that
5 said test electrical load is connected, and
6 means for providing an alarm indication in response to the battery
7 voltage falling below a predetermined voltage value during the voltage sensing
8 time interval.

1 13. Emergency building lighting system as defined in claim 12, wherein the
2 test electrical load is in the range of 10 to 20 times the electrical load of the
3 emergency building lighting system.

1 14. Emergency building lighting system as defined in claim 13, wherein
2 said predetermined short time interval is in the range of 10 to 30 seconds.

1 15. Emergency building lighting system as defined in claim 8, further
2 comprising means for activating said self-diagnostic testing means in
3 accordance with a predetermined time schedule.

1 16. Emergency building lighting system as defined in claim 8, further
2 comprising means for manually activating said self-diagnostic testing means.

1 17. Emergency building lighting system as defined in claim 8, further
2 comprising means for activating said self-diagnostic testing means in response
3 to the conventional lighting located in said designated area being turned on
4 and off.

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